

Due by March 31, 2016

Notice: Pursuant to s. NR 216.07(8), Wis. Adm. Code, an owner or operator of a Municipal Separate Storm Sewer System (MS4) is required to submit an annual report to the Department of Natural Resources (DNR) by March 31 of each year to report on activities for the previous calendar year. This form is being provided by the DNR for the user's convenience. Personal information collected will be used for administrative purposes and may be provided to the extent required by Wisconsin's Open Records Law [ss. 19.31-19.39, Wis. Stats.].

This form is for reporting on activities undertaken in calendar year 2015.

Instructions: Complete each section of the form that follows. If additional space is needed to respond to a question, attach additional pages. Provide descriptions that explain the program actions taken to comply with the general permit. Complete and submit the annual report by March 31, 2016, to the appropriate address indicated on the last page of this form.

SECTION I. Municipal Information

Name of Municipality		Facility ID No. (FIN)	
City of Menomonie		31426	
Mailing Address	City	State	ZIP Code
800 Wilson Ave	Menomonie	WI	54751
County(s) in which Municipality is located	Municipality Type: (select one)		
Dunn	<input type="radio"/> County <input checked="" type="radio"/> City <input type="radio"/> Village <input type="radio"/> Town <input type="radio"/> Other (specify)		

SECTION II. Municipal Contact Information

Name of Municipal Contact Person		Title	
Randy D. Eide		Director of Public Works	
Mailing Address (if different from above)	City	State	ZIP Code
800 Wilson Ave	Menomonie	WI	54751
Email	Phone Number (include area code)	Fax Number (include area code)	
reide@menomonie-wi.gov	(715) 232-2207	(715) 235-0888	

SECTION III. Certification

I hereby certify that I am an authorized representative of the municipality covered under MS4 General Permit No. WI-S050075-2 for which this annual report is being submitted and that the information contained in this document and all attachments were gathered and prepared under my direction or supervision. Based on my inquiry of the person or persons under my direction or supervision involved in the preparation of this document, to the best of my knowledge, the information is true, accurate, and complete. I further certify that the municipality's governing body or delegated representatives have reviewed or been apprised of the contents of this annual report. I understand that Wisconsin law provides severe penalties for submitting false information.

Authorized Representative Printed Name	Authorized Representative Title		
Randy Knaack	Mayor <i>Mayor</i>		
Signature of Authorized Representative	Date		
<i>Randy Knaack</i>	3-14-16		
Email	Phone Number (include area code)	Fax Number (include area code)	
mayor@menomonie-wi.gov	(715) 232-2187	(715) 235-0888	

SECTION IV. General Information

- a. Describe what efforts the municipality has undertaken to invite the municipal governing body, interest groups, and the general public to review and comment on the annual report.
- 2015 Annual Report formally posted on City Council March 7, 2016 Agenda... available for public comment and City Council action
 - 2015 Annual Report posted on City Web site www.menomonie-wi.gov for review and comment
 - 2015 Annual Report available to the public at the March 10, 2016 Red Cedar River Conference
- b. Describe how elected and municipal officials and appropriate staff have been kept apprised of the municipal storm water discharge permit and its requirements.
- Storm water utility budget discussions throughout 2015
 - Elected officials attended the 2015 Red Cedar River conference to better understand permit requirements
 - Numerous City Council storm water agenda items throughout 2015: 2/16/15 - Friends of Red Cedar Lake District Update and Anti-Icing Equipment Bids review; 3/2/15 - Review No-Till Crop Lease Bids; 3/16/15 - 2015 Annual Storm Water Report Review; 4/6/15 - WI DNR Urban Non-Point Storm Water Grant Application; 8/3/15 - Review Lake Menomin Improvement Projects (dredging); 12/7/15 - Review 2016 Storm Water Utility Budget
- c. Has the municipality prepared its own municipal-wide storm water management plan? ☒ Yes ☐ No

SECTION IV. General Information (continued)

If yes, title and date of storm water management plan:

City of Menomonie Storm Water Management Plan dated 2004 and amended in December, 2014

- d. Has the municipality entered into a written agreement with another municipality or a contract with another entity to perform one or more of the conditions as provided under section 2.10 of the general permit? ☒ Yes ☐ No

If yes, describe these cooperative efforts:

The City of Menomonie is a member of Rain to Rivers of Western Wisconsin to provide a good amount of the necessary Education and Outreach prescribed by our General Permit. Rain to Rivers is funded through membership fees and DNR grants. The City supports the organization through fees and dedicated staff time.

- e. Does the municipality have an internet website? ☒ Yes ☐ No

If yes, provide web address:

www.menomonie-wi.gov

If the municipality has an internet website, is there current information about or links provided to the MS4 general permit and/or the municipality's storm water management program?

☒ Yes ☐ No

If yes, provide web address:

www.menomonie-wi.gov click on DEPARTMENTS and then click on STORM WATER

SECTION V. Permit Conditions

- a. Minimum Control Measures: For each of the permit conditions listed below, provide a description of the implementation of each program element, the status of meeting measurable goals, and compliance with permit schedule in section 2.11 of the MS4 general permit. Provide an evaluation of program compliance with the general permit, the appropriateness of identified best management practices, and progress towards achieving identified measurable goals. Be specific in describing the actions that have been taken during the reporting year to implement each permit condition and whether measurable goals have been met, including any data collected to document a measurable goal. Also, explain the reasons for any variations from the compliance schedule in the MS4 general permit.

• Public Education and Outreach

Key components of our Education and Outreach is through the City's membership and participation in Rain to Rivers of Western Wisconsin. Attached is the membership and purpose of the organization along with a listing of all of the Education and Outreach events that took place in 2015. We've exceeded our goal of 4 newspaper articles per year given all of the education events listed on the attached spreadsheet plus Menomonie related news articles on April 7th, July 30th, September 6th, and October 20th. Plus the Tainter/Menominee Lake Improvement Association hosted Video discussions on water quality on September 16th, 23rd, and 30th. All of the events combined far exceed the goal of 4 news articles per year.

• Public Involvement and Participation

Public Involvement and Participation are key components of every education and outreach event. In addition the City allows for comments and questions through out web site "comment" opportunity. Goals met.

• Illicit Discharge Detection and Elimination

A DNR model illicit discharge ordinance is in place and all outlets were inspected in 2015 with no observed violations. Street Department personnel are asked to watch for illicit discharges throughout the year. Ordinance in place and annual inspection conducted and all violations acted on -- Goals met.

• Construction Site Pollutant Control

Title 9, Chapter 10 of the City code addresses construction site pollution control. The Building Inspection Department is responsible for the permitting and enforcement action of this ordinance. In 2015 35 Erosion control plans were approved. Five erosion permit violations were observed and acted on in 2015. The ordinance is in place and all violations were addressed -- Goals met.

• Post-Construction Storm Water Management

Title 9, Chapter 11 of the City Code addresses Post-Construction Storm Water management. 26 storm water management plans were reviewed and approved in 2015. 76.4 engineering hours were expended insuring the storm water management plans were in compliance with our ordinance. New in 2015 the City secured the assistance of UW Stout students to create a general storm water management BMP checklist. The checklist will

SECTION V. Permit Conditions (continued)

be put to use in 2016. Ordinance in place and all new developments, projects and redevelopment must comply with the ordinance -- Goals met.

• **Pollution Prevention**

Twice annual curbside pick-up of leaves and yard waste combined with the three street sweepers patrolling the streets in the fall of the year have allowed us to capture 2, 267 cubic yards of leaf waste before it enters the storm water system. In addition over 1,760-hours were expended in actual sweeping of the streets all of 2015. Our initial summary of the total street sweeping operation in 2015 includes the collection of 95.7 tons of waste and the 1,050 cubic yards of street sweepings that meet the beneficial re-use permit criteria and will be used as fill at the solid waste site per our permit.

In 2015 the Street Department started an anti-icing operation on select streets and areas to reduce the amount of salt applied directly to the roads. Only 240 yards of straight salt applied in 2015... a reduction of 96-yds when compared to the 336-yds of salt directly applied in 2014. 15,250 gallons of brine applied to select streets in 2015 (first year using anti-icing operation).

Street sweepings and leaves collected before they enter our waterways and the use of salt applied to the streets reduced in 2015. Goals met.

b. Winter Road Management Activities:

Provide the name, title, and phone number for the individual(s) with overall responsibility for winter roadway maintenance.

Bruce Heath, Street Supervisor, 715-232-2302

Describe the types of products used for winter road management (e.g., deicing, pre-wetting, salting, etc.).

Standard road salt, salt/sand, pre-wetting and anti-icing (new for 2015)

Describe the type of equipment used to apply the products.

Rear rotational salt/sand spreader on snow plow trucks

Brine tanks mounted on one snow plow to apply the 23% brine solution for anti-icing

Report the amount of product used per month.

January: Salt - 100 cubic yards; Brine - 400 gallons; Sand/Salt - 413 cubic yards

February: Salt - 97 cubic yards; Brine - 350 gallons; Sand/Salt - 154 cubic yards

March: Salt - 2 cubic yards; Brine - 100 gallons; Sand/Salt - 87 cubic yards

November Salt - 12 cubic yards; Brine - 6,000 gallons; Sand/Salt - 358 cubic yards

December Salt - 29 cubic yards; Brine - 8,800 gallons; Sand/Salt - 95 cubic yards

Report the snow disposal locations, if snow is hauled away.

All collected snow stays in the City limits. Boat ramp snow storage locations were REMOVED in 2008. Snow storage locations include: Phelan Park, UW Stout Parking Lot (2nd St West), Stout Tech Park (vacant lots), Wakanda Park, HWY 29 (west side of City) and North Fire Station vacant lot.

Describe any anti-icing, equipment calibration, and salt reduction strategies considered.

Anti-icing started in 2015. New brine mixing equipment (\$24K) purchased in 2015. Only select roads, bridges and hills receive the brine solution.

Describe any other additional measurable data or information that the permittee used to evaluate its winter road management activities.

SECTION V. Permit Conditions (continued)

c. Municipal facility(s):

Provide an inventory of municipally owned or operated structural storm water management facility(s), include: Location of each facility and contact information for the individual(s) with overall responsibility for each facility.

See attached map of all municipal owned storm water management facilities

Describe the housekeeping activities and best management practices installed to reduce or eliminate storm water contamination. Storm Water Pollution Prevention Plan (SWPPP - 2010) has identified best management practices for the: Street Department, Waste Water Treatment Plant, Parks Department, Solid Waste Site, and the Menomonie Municipal Airport. SWPPP is reviewed annually.

Discuss recommendations for improvements to current storm water management practices at the facility(s) and a timeline for installation and/or implementation of these recommendations.

New maintenance checklist for storm water management BMPs developed with the help of UW Stout. The checklist will be put in use in 2016.

Describe the municipal facility(s) employee training on storm water pollution prevention provided.

Review of SWPPP requirements at department level meetings. Use and calibration of the anti-icing equipment.

Describe the spill prevention and response procedures in place at the municipal facility(s).

Spill kits at maintenance facilities

Major responder for all spills is the full time Fire Department

d. Storm Water Quality Management: Has the municipality completed a pollutant-loading analysis to assess compliance with the 20% TSS reduction developed urban area performance standard? ☒ Yes ☐ No

If yes, provide the following: Model used Win SLAM Version 9.3.3 Reduction (%) 33

If no, include a description of any actions the municipality has undertaken during 2015 to help achieve the 20% standard.

Has the municipality completed an evaluation of all municipal owned or operated structural flood control facilities to determine the feasibility of retrofitting to increase TSS removal? ☐ Yes ☒ No

If yes, describe:

e. Best Management Practices Maintenance: Does the municipality have a maintenance program for installed storm water best management practices? ☒ Yes ☐ No

If yes, describe the maintenance program and any maintenance activities that have occurred for best management practices in 2015. If available, attach any additional information on the maintenance program.

Publicly owned BMPs are inspected annually. A new BMP inspection checklist (see attached) was developed with the assistance of UW Stout.

f. Storm Sewer System Map: Describe any changes or updates to the storm sewer system map made in the reporting year. Provide an updated map if any changes occurred during the reporting year.

No changes

SECTION VI. Fiscal Analysis

a. Provide a fiscal analysis that includes the annual expenditures for 2015, and the budget for 2015 and 2016. A table to document fiscal information is provided on page 7.

SECTION VI. Fiscal Analysis (continued)

b. What financing/fiscal strategy has the municipality implemented to finance the requirements of the general permit?

☒ Storm water utility ☐ General fund ☐ Other _____

c. Are adequate revenues being generated to implement your storm water management program to meet the permit requirements?

☐ Yes ☒ No

Please provide a brief summary of your financing/fiscal strategy and any additional information that will assist the Department in understanding how storm water management funds are being generated to implement and administer your storm water management program.

Our storm water utility was created in 2008. The rate started at \$8/3,000SF/Qtr in 2008 and has since been increased twice (\$9 in 2011 and \$10 in 2015). It is anticipated we will generate almost \$600K in revenue in 2016 but there is still not sufficient funds to construct any of the regional storm water ponds identified to help the City meet the phosphorous reduction goals established in the Red Cedar TMDL.

SECTION VII. Inspections and Enforcement Actions

Note: If an ordinance listed below has previously been submitted and has not been amended since that time, a copy does not need to be submitted again. If the ordinance was previously submitted, indicate such in the space provided.

a. As of the date of this annual report, has the municipality updated or revised its construction site pollutant control ordinance in accordance with subsection 2.4.1 of the general permit?

☐ Yes ☒ No

If yes, attach copy or provide web link to ordinance:

b. As of the date of this annual report, has the municipality updated or revised its post-construction storm water management ordinance in accordance with subsection 2.5.1 of the general permit?

☐ Yes ☒ No

If yes, attach copy or provide web link to ordinance:

c. As of the date of this annual report, has the municipality updated or revised its illicit discharge detection and elimination ordinance in accordance with subsection 2.3.1 of the general permit?

☐ Yes ☒ No

If yes, attach copy or provide web link to ordinance:

d. As of the date of this annual report, has the municipality adopted any other ordinances it has deemed necessary to implement a program under the general permit (e.g., pet waste ordinance, leaf management/yard waste ordinance, parking restrictions for street cleaning, etc.)?

☒ Yes ☐ No

If yes, attach copy or provide web link to ordinance:

LID/MIDS ordinance is in draft form (see attached)

e. Provide a summary of available information on the number and nature of inspections and enforcement actions conducted during the reporting period to ensure compliance with the ordinances described in a. to d. above.

All approved construction erosion control and post storm water management permits are inspected during construction and post construction. In 2015 we noted 5 erosion control violations -- all of which were corrected.

SECTION VIII. Water Quality Concerns

a. Does any part of the MS4 discharge to an outstanding resource water (ORW) or exceptional resource water (ERW) listed under s. NR 102.10 or 102.11, Wis. Adm. Code? (A list of ORWs and ERWs may be found on the Department's Internet site at: <http://dnr.wi.gov/topic/surfacewater/orwerw.html>)

☐ Yes ☒ No

If yes, list:

b. Does any part of the MS4 discharge to an impaired waterbody listed in accordance with section 303(d)(1) of the federal Clean Water Act, 33 USC § 1313(d)(1)(C)? (A list of the most current Wisconsin impaired waterbodies may be found on the Department's Internet site at: <http://dnr.wi.gov/water/impairedsearch.aspx?status=303d>)

☒ Yes ☐ No

If yes, complete the following:

- Impaired waterbody to which the MS4 discharges:

Lake Menomin and Red Cedar River

SECTION VIII. Water Quality Concerns (continued)

- Description of actions municipality has taken to comply with section 1.5.2 of the MS4 general permit for discharges of pollutant (s) of concern to an impaired waterbody:
 - Annual inspection of all storm water outfalls
 - Received approval from Dunn County and the City Council to construct our 1st Regional Storm Water Pond at the Dunn County Rec Park. The new pond will remove 10,000 lbs of sediment and 45 lbs of phosphorus annually
 - Received DNR permit to repair Jarrett creek failed banks in 2016... reducing the amount of sediment entering Lake Menomin
 - Received DNR permit to dredge a small bay at Wolske Bay in 2016 to remove accumulated sediment
- c. Identify any known water quality improvements in the receiving water to which the MS4 discharges during the reporting period.
None noted
- d. Identify any known water quality degradation in the receiving water to which the MS4 discharges during the reporting period and what actions are being taken to improve the water quality in the receiving water.
City of Menomonie is an active partner in the creation of the Red Cedar TMDL Implementation Plan which was recently approved by the EPA. As part of the approved plan, the City of Menomonie will support the ongoing education and outreach efforts identified in the plan.

SECTION IX. Proposed Program Changes

Describe any proposed changes to the storm water management program being contemplated by the municipality for 2016 and the schedule for implementing those changes. Proposed program changes must be consistent with the requirements of the general permit.

The City of Menomonie continues to develop a Low Impact Development/Minimum Impact Design Standards (LID/MIDS) ordinance as a new approach for post construction storm water management. The LID/MIDS process follows the low impact design standards developed in Minnesota. We expect the new ordinance will increase the amount of TSS and phosphorus removed with the establishment of low impact BMPS and more infiltration. We anticipate City Council action on the new ordinance late in 2016.

SECTION X. Other

Any other additional information the permittee would like to provide in the Annual Report regarding their storm water program?

Fiscal Analysis Table. Complete the fiscal analysis table provided below.

Program Element	Annual Expenditure 2015	Budget		Source of Funds
		2015	2016	
Public Education and Outreach	18,000	26,700	26,800	Storm Water Utility
Public Involvement and Participation	17,200	25,500	25,600	Storm Water Utility
Illicit Discharge Detection and Elimination	19,600	29,100	29,200	Storm Water Utility
Construction Site Pollutant Control	8,000	11,900	11,900	Storm Water Utility
Post-Construction Storm Water Management	18,400	27,300	27,400	Storm Water Utility
Pollution Prevention	70,000	103,800	104,100	Storm Water Utility
Storm Water Quality Management (including pollutant-loading analysis)	114,400	169,600	170,200	Storm Water Utility
Storm Sewer System Map	8,000	11,900	11,900	Storm Water Utility
Other: Overhead, Depreciation, Debt Service	126,400	187,400	188,000	Storm Water Utility

NORTHERN REGION COUNTIES

Ashland	Langlade	DNR Service Center
Barron	Lincoln	Attn: Storm Water Program
Bayfield	Oneida	5301 Rib Mountain Rd.
Burnett	Polk	Wausau, WI 54401
Douglas	Price	Phone: (715) 359-4522
Florence	Rusk	
Forest	Sawyer	
Iron	Taylor	
	Vilas	
	Washburn	

WEST CENTRAL REGION COUNTIES

Adams	Marathon	DNR Service Center
Buffalo	Monroe	Attn: Storm Water Program
Chippewa	Pepin	5301 Rib Mountain Rd.
Clark	Pierce	Wausau, WI 54401
Crawford	Portage	Phone: (715) 359-4522
Dunn	St. Croix	
Eau Claire	Trempealeau	
Jackson	Vernon	
Juneau	Wood	
La Crosse		

NORTHEAST REGION COUNTIES

Brown	Marquette	DNR Northeast Region
Calumet	Menominee	Attn: Storm Water Program
Door	Oconto	2984 Shawano Ave.
Fond du Lac	Outagamie	Green Bay, WI 54313
Green Lake	Shawano	Phone: (920) 662-5100
Kewaunee	Waupaca	
Manitowoc	Waushara	
Marinette	Winnebago	

SOUTH CENTRAL REGION COUNTIES

Columbia	Jefferson	DNR South Central Region
Dane	LaFayette	Attn: Storm Water Program
Dodge	Richland	3911 Fish Hatchery Rd.
Grant	Rock	Fitchburg, WI 53711
Green	Sauk	Phone: (608) 275-3266
Iowa		

SOUTHEAST REGION COUNTIES

Kenosha	Sheboygan	DNR Service Center
Milwaukee	Walworth	Attn: Storm Water Program
Ozaukee	Washington	141 NW Barstow Street,
Racine	Waukesha	Room 180
		Waukesha, WI 53188
		(262) 574-2100



2015 STORM WATER EDUCATION & OUTREACH

Rain to Rivers of Western Wisconsin

Storm water education and outreach was provided to western Wisconsin through the Rain to Rivers of Western Wisconsin, formerly called the Chippewa Valley Storm Water Forum. Rain to Rivers of Western Wisconsin (R2R) is an agreement between 14 municipalities with support from Wisconsin Department of Natural Resources (DNR) and University of Wisconsin - Extension. The group met monthly in 2015 to collaborate on a shared vision to perform storm water education and outreach in a cost-effective and united manner. The group worked to implement its Information and Education Plan in accordance with DNR grant requirements. Residents of western Wisconsin are the primary target audience.

Rain to Rivers utilized a DNR Urban Nonpoint Source and Storm Water Program Grant in 2015 to further its outreach efforts. Activities performed under this grant included attendance, presentations, and booths at 25 local events, ramping up R2R's social media presence, continuing brand development with booth materials including a pop-up tent and table cover, and large-scale print marketing at a local mall. Press releases were distributed seasonally to various media sources throughout the member region and included newspapers and social media. The group's movie theater ads continued to run as well.

The Rain to Rivers website, www.raintorivers.org, continues to serve as an educational tool that provides citizens access to a wide variety of information about the importance of controlling erosion and storm water runoff and what they can do to protect water resources. The group will continue its work in 2016 with the help of a contractor to implement identified goals.

MEMBERS



Village of Lake Hallie | Town of Eagle Point | Town of Lafayette
Town of Seymour | Town of Union | Town of Washington

PARTNERS



Rain to Rivers Educational Events and Activities						
Event	Contact	Date	Time	Location	Who Was Involved	Description/Notes
Winter Fest	Kelly Jacobs	1/24-1/25/15		Lake Altoona	Kelly Jacobs, Skyler Witalson	Eau Claire County had a display focused on land and water resource education, including storm water issues.
Ready, Set, Grow	Dan Zerr	2/7/2015		Eau Claire	Dan Zerr	Set up a display/information booth for this winter gardening day, featuring storm water education materials.
Red Cedar River Conference	Dan Zerr	3/12/2015		Menomonie	John Genskow, Lindsay Olson, Dan Zerr	Set up a storm water display/information booth at the conference. Approx. 300 attendees.
Red Cedar River Conference	Randy Eide	3/12/2015		Menomonie	Randy Eide	Set up storm water display about storm water projects in Menomonie. Shared an hour-long presentation with Jay Michels about MIDS and how they are being incorporated into Menomonie's storm water ordinance.
St. Croix County Earth Day	Crystal Raleigh	4/19/2015		Y-Camp St. Croix	Crystal Raleigh	Used plinko board to teach storm water concepts to approximately 220 children of all ages.
Rocky Branch Earth Day Celebration	Crystal Raleigh	4/24/2015		River Falls	Crystal Raleigh	Spoke to about 60 5th graders about storm water management ponds in the City and then we went out and cleaned up 3 ponds in town.
Jam It for the Planet	John Genskow	4/25/2015		Eau Claire	John Genskow, Lindsay Olson	Storm water display set up all day and 15 minute formal presentation on storm water concepts and local storm water projects in Eau Claire.
River Falls Montessori Green Day	Crystal Raleigh	5/15/2015		River Falls	Crystal Raleigh	Spoke to approximately 70 lower elementary students about the pervious pavers at City Hall and we played the Plinko game.
Just Add Water Lab	Crystal Raleigh	6/12/15 - 7/29/15		Hudson	Crystal Raleigh, Liz Malanaphy	Liz borrowed the Plinko game and it was on display at the Phipps for several weeks. She had a group of students in a summer camp that used the board as a learning tool.
River Falls Customer Appreciation Event	Crystal Raleigh	7/30/2015		River Falls	Crystal Raleigh	Set up Plinko at luncheon event. Was busy for the entire 2 hours with students that wanted play and learn.
Northern Wisconsin State Fair	Rob Krejci	7/18-7/12/15		Chippewa Falls	Rob Krejci	Booth set up during the fair with information about storm water, rain barrels, projects in Chippewa Falls, etc.
Eau Claire Summer Fest	Lindsay Olson	8/1/2015		Eau Claire	Lindsay Olson	Exhibit booth and educational materials set up in downtown Eau Claire for this annual large street festival.
New Richmond Customer Appreciation Event	Crystal Raleigh	8/4/2015		New Richmond	Crystal Raleigh, Jeremiah Wendt	Jeremiah Wendt borrowed the Plinko board for the luncheon event.
Little Scientists Camp	Crystal Raleigh	8/5/2015		River Falls	Crystal Raleigh	Did "Who Polluted The Kinni" activity and used Plinko Board to teach summer camp students.
Hwy 64 Stormwater/Wastewater Coalition	Crystal Raleigh	8/13/2015		Star Prairie	Crystal Raleigh, Randy Eide	Spoke to SW/WW Coalition about Rain To Rivers of Western Wisconsin, the importance of storm water education, showed materials created, and discussed membership in Rain To Rivers.
Celebrate the Chippewa River Day	Dan Zerr	8/28/2015		Chippewa Falls	Dan Zerr, John Genskow	Dan did a 20 minute presentation on generic storm water education, and John gave a 20 minute presentation on storm water controls in Eau Claire. Approximately 20 people in attendance.

Chippewa County Conservation Days	Rob Krejci		9/14/2015	Chippewa Falls	Rob Krejci	Conservation presentations to 5th graders from Chippewa Falls school district including presentations on water quality.
Red Cedar River Conference Keynote Address Video	Randy Eide		9/16/2015	Menomonie	Randy Eide	Taped video showing of "Wounded Waters" keynote presentation from the 2015 Red Cedar River Conference. Video shown at The Raw Deal in Menomonie, sponsored by the Tainter Menominee Lake Improvement Association.
Chippewa County Conservation Days	Rob Krejci		9/18/2015	Chippewa Falls	Rob Krejci	Conservation presentations to 5th graders from Chippewa Falls school district including presentations on water quality.
Red Cedar River Conference Keynote Address Video	Randy Eide		9/23/2015	Menomonie	Randy Eide	Taped video showing of "Soil Health" keynote presentation from the 2015 Red Cedar River Conference. Video shown at The Raw Deal in Menomonie, sponsored by the Tainter Menominee Lake Improvement Association.
Red Cedar River Conference Keynote Address Video	Randy Eide		9/30/2015	Menomonie	Randy Eide	Taped video showing of "The Future is HOW: Quantum Civics" keynote presentation from the 2015 Red Cedar River Conference. Video shown at The Raw Deal in Menomonie, sponsored by the Tainter Menominee Lake Improvement Association.
Dunn County News runs ad on fall yard clean-up	Lindsay Olson		10/20/2015	Dunn County	Lindsay Olson	Press release sent to various news outlets, and Dunn County News published it via a story entitled "Water Quality Crucial During Fall Yard Waste Clean-Up."
Guest Lecture to Environmental Policy Class at UWEC	Dan Zerr		11/17/2015	Eau Claire	Dan Zerr	Guest lecture to Karen Mumford's Environmental Policy class at UWEC. About 20 students present. Topic was non-point source pollution. Discussed runoff in both ag and urban settings, and what can be done.
Educational Signs at Oakwood Mall kiosks	Lindsay Olson		11/23/2015	Eau Claire	Lindsay Olson	Rain to Rivers storm water education signs were installed at two kiosks in the Oakwood Mall in Eau Claire.
Red Cedar River Water Quality Partnership meeting	Dan Zerr		12/2/2015	Menomonie	Dan Zerr, Randy Eide, Lindsay Olson	Semi-monthly meeting of the Partnership, which focuses on water quality issues in the Red Cedar River Basin, including storm water control.
Eau Claire River Watershed Coalition meeting	Dan Zerr		12/8/2015	Town of Washington	Dan Zerr, Lindsay Olson	Coalition meeting to discuss watershed planning for the Eau Claire River and its impounded lakes.

BMP Inspection Checklist

Inspector Name:

Date:

Time:

BMP Type: ☐ Infiltration Pond ☐ Detention Pond ☐ Grass Swale/Rain Garden ☐ Other

Intensity: ☐ Light ☐ Moderate ☐ Heavy

LEVEL 1 +2 Point +0 Point

Score: / 20

1. Sediment Accumulation

☐ Excessive

☐ Normal

BMP has clear accumulation of sediment

4. Flow

☐ Flowing Water

☐ No Flowing Water

Small quantities of water flow through BMP, even between storms

6. Outlet

☐ Clogged

☐ Not Clogged

Outlet drain out of BMP is clogged

8. Contamination

☐ Contaminated

☐ Uncontaminated

Oil, gasoline, or other contaminants clearly visible in BMP

10. Water Depth

☐ Under Four Feet in Depth

☐ Over Four Feet in Depth

Water depth is below the required 4 feet of depth

11. Pollution

☐ Evident Trash

☐ No Trash

Accumulation of trash or debris in BMP

13. Vegetative Cover

☐ Sparse Vegetation

☐ Proper Vegetation

Vegetation in BMP is sparse and has clear eroded patches

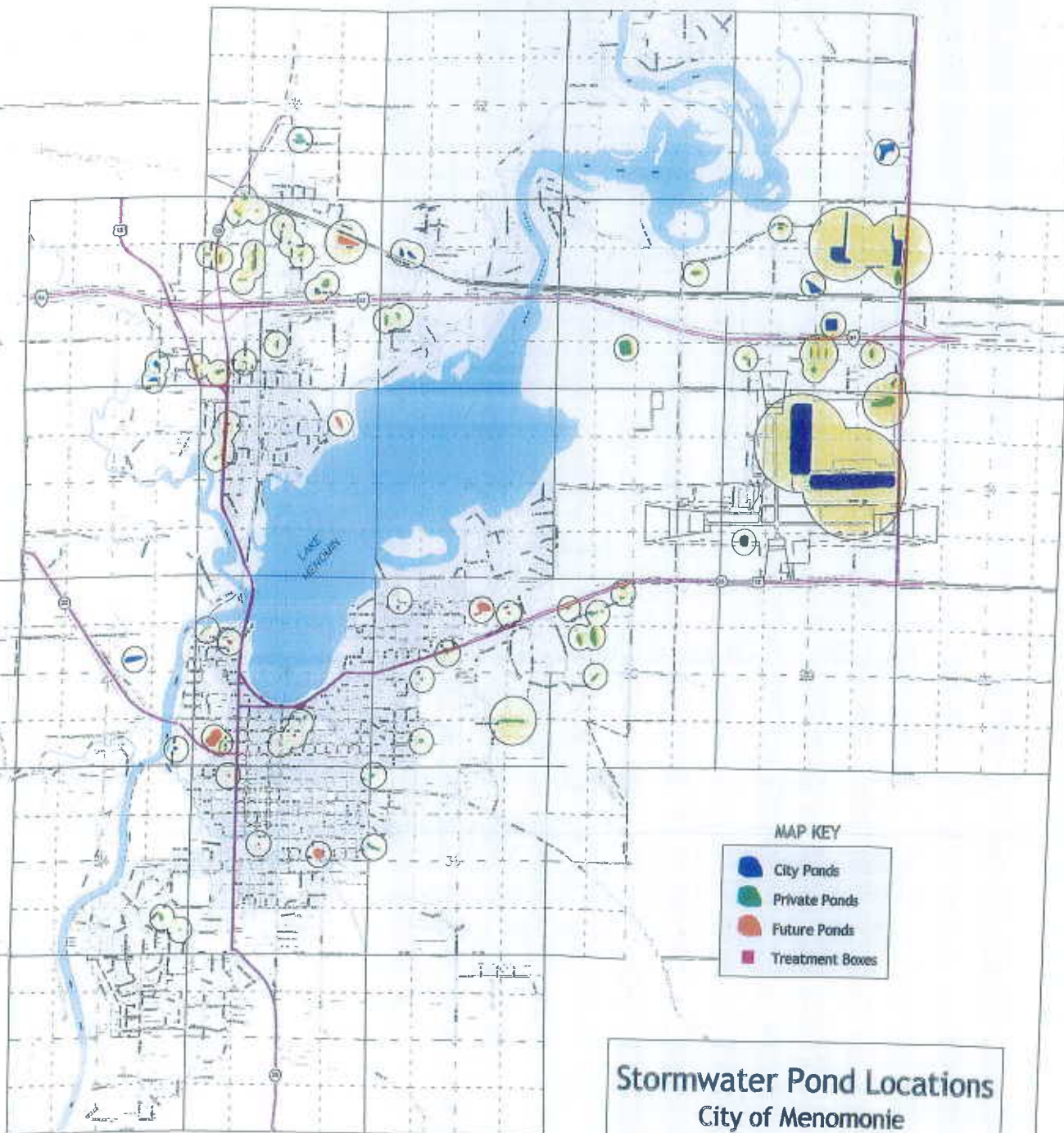
15. Pipe Condition

☐ Evident Corrosion

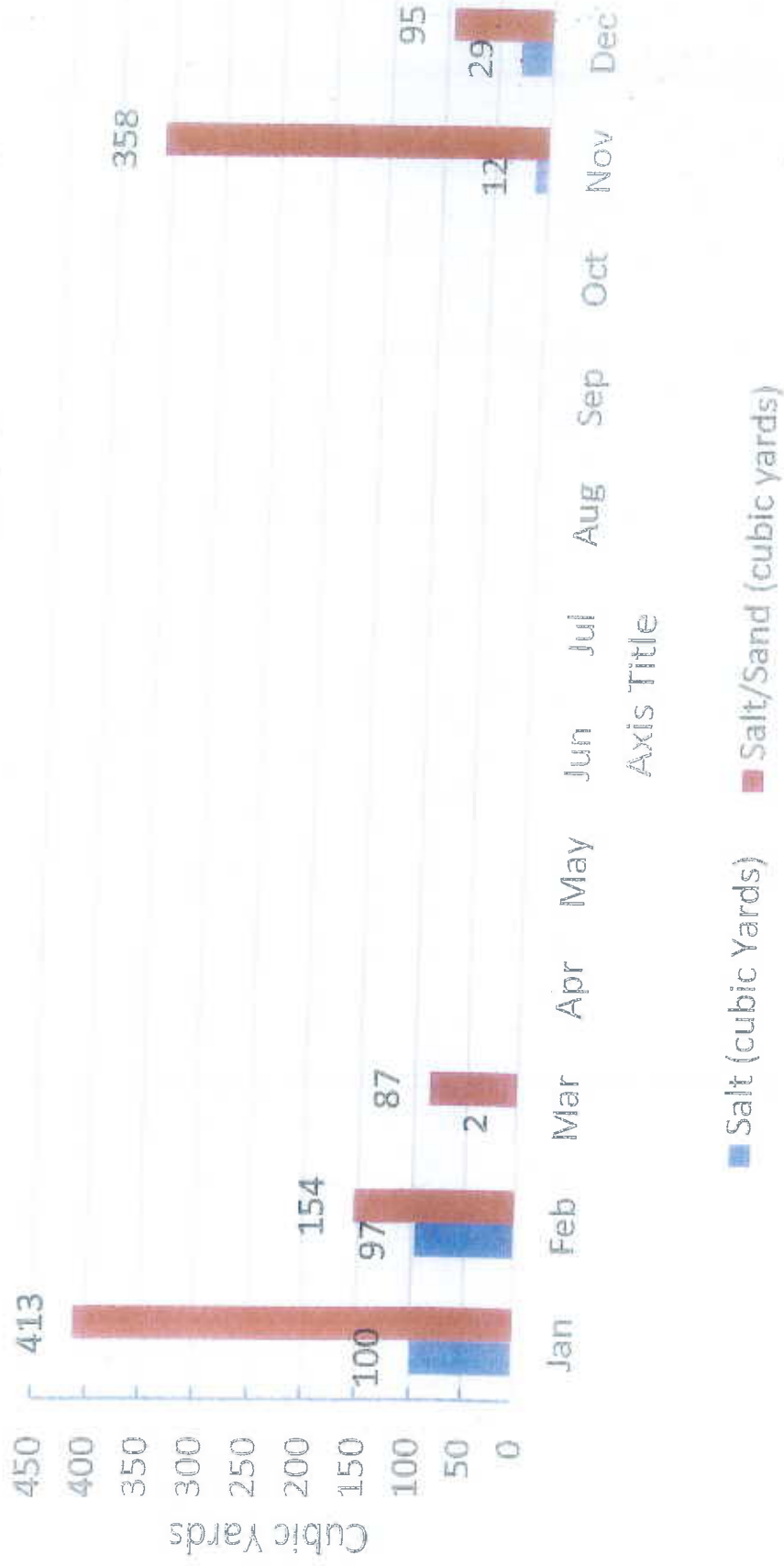
☐ No Evident Corrosion

Inlet or outlet drains show clear signs of corrosion

Comments:



Salt & Salt/Sand Use -- 2015



Salt (cubic yards)



DRAFT #2, JULY 17, 2015

ORDINANCE 2015 - _____ OF THE ORDINANCES FOR THE CITY OF MENOMONIE FOR 2015.

An ordinance amending stormwater management regulations in the City.

THE COMMON COUNCIL OF THE CITY OF MENOMONIE DO ORDAIN AS FOLLOWS:

Section 1. Title 9 Chapter 11 of the City Code is hereby repealed and recreated as follows:

Chapter 11

STORMWATER MANAGEMENT

SECTION:

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9-11-1: **AUTHORITY:**

- A. This chapter is adopted by the common council under the authority granted by section 62.234, Wisconsin statutes. This chapter supersedes all conflicting and contradicting stormwater management regulations previously enacted that relate to stormwater management regulations. Except as otherwise specified in section 62.234, Wisconsin statutes, section 62.23, Wisconsin statutes, applies to this chapter and to any amendments to this ordinance.
- B. The provisions of this chapter are deemed not to limit any other lawful regulatory powers of the city.
- C. The common council hereby designates the city building inspector, with assistance from director of public works and city engineer, to administer and enforce the provisions of this chapter.
- D. The requirements of this chapter do not preempt more stringent stormwater management requirements that may be imposed by any of the following:
 - 1. Wisconsin department of natural resources administrative rules, permits or approvals including those authorized under sections 281.16 and 283.33, Wisconsin statutes.
 - 2. Targeted nonagricultural performance standards promulgated in rules by the Wisconsin department of natural resources under NR 151.004, Wisconsin administrative code.
 - 3. Other city ordinances and zoning regulations.

9-11-2: **FINDINGS OF FACT:** The common council finds that uncontrolled, post construction runoff has a significant impact upon water resources and the health, safety and general welfare of the community and diminishes the public enjoyment and use of natural resources. Specifically, uncontrolled post construction runoff can:

- A. Degrade physical stream habitat by increasing stream bank erosion, increasing streambed scour, diminishing ground water recharge, diminishing stream base flows and increasing stream temperature.
- B. Diminish the capacity of lakes and streams to support fish, aquatic life, recreational and water supply uses by increasing pollutant loading of sediment, suspended solids, nutrients, heavy metals, bacteria, pathogens and other urban pollutants.
- C. Alter wetland communities by changing wetland hydrology and by increasing pollutant loads.
- D. Reduce the quality of ground water by increasing pollutant loading.
- E. Threaten public health, safety, property and general welfare by overtaxing storm sewers, drainage-ways, and other minor drainage facilities.
- F. Threaten public health, safety, property and general welfare by increasing major flood peaks and volumes.
- G. Undermine floodplain management efforts by increasing the incidence and levels of flooding.

9-11-3: **PURPOSE AND INTENT:**

- A. Purpose: The general purpose of this chapter is to establish long term, post-construction runoff management requirements that will diminish the threats to public health, safety, welfare and the aquatic environment. Specific purposes are to:
 - 1. Meet the stormwater management performance goals set forth in section 12 of this chapter.
 - 2. Promote regional stormwater management by watershed;

3. Assist in meeting Total Maximum Daily Load (TMDL) plan waste load allocations for impaired waters through quantification of load reductions;
4. Minimize sedimentation, water pollution from nutrients, heavy metals, chemical and petroleum products and other contaminants, flooding and thermal impacts to the waters of the state;
5. Promote infiltration and groundwater recharge;
6. Protect functional values of natural watercourses and wetlands;
7. Provide a set of performance standards that are at least as protective of the environment and natural resources as and not in conflict with the standards set forth by the Wisconsin department of natural resources;
8. Ensure no increase in the rate of surface water drainage from sites during or after construction;
9. Control exceedance of the safe capacity of existing drainage facilities and receiving water bodies;
10. Protect public and private property from damage resulting from runoff or erosion;
11. Ensure no increase in temperature of post-construction stormwater in order to protect cold-water communities;
12. Protect spawning grounds, fish and aquatic life;
13. Preserve ground cover and scenic beauty, and;
14. Promote sound economic growth and protect the tax base.

B. Intent: It is the intent of the common council that this chapter regulates post construction stormwater discharges within the city and to Waters of the State. This chapter may be applied on a site by site basis. The common council recognizes, however, that the preferred method of achieving the stormwater performance standards set forth in this

chapter is through the preparation and implementation of comprehensive, systems level stormwater management plans that cover hydrologic units, such as watersheds, on a municipal and regional scale. Such plans may prescribe regional stormwater devices, practices or systems, any of which may be designed to treat runoff from more than one site prior to discharge to Waters of the State. Where such plans are in conformance with the performance standards developed under section 281.16, Wisconsin statutes, for regional stormwater management measures and have been approved by the common council, it is the intent of this chapter that the approved plan be used to identify post construction management measures acceptable for the community.

9-11-4: **APPLICABILITY AND JURISDICTION:**

A. Applicability:

1. Where not otherwise limited by law, this chapter applies after final stabilization to a site of land development or land disturbing which changes the predevelopment hydrology and/or increases the rate of volume of runoff, or the thermal, chemical, or sediment loading leaving the site beyond the conditions that existed prior to any planned land development or land disturbing activity.
2. Notwithstanding the applicability requirements in subsection A.1., this chapter applies to post construction sites of any size that, in the opinion of the administering authority, is likely to result in runoff that exceeds the safe capacity of the existing drainage facilities or receiving body of water, that causes undue channel erosion, that increases water pollution by scouring or the transportation of particulate matter or that endangers property or public safety.
3. The city building inspector, with assistance of director of public works and city engineer, may establish on site stormwater management requirements less stringent than those set forth herein, provided that provisions are made to manage stormwater by an offsite facility; provided, that all of the following conditions for the offsite facility are met:

a. The offsite facility is operational prior to commencing the proposed land development or land disturbing activity.

b. The offsite facility is designed and adequately sized to provide a level of stormwater control equal to or greater than that which would be afforded by on site practices meeting the requirements of this chapter.

c. The offsite facility has a legally obligated entity responsible for its long term operation and maintenance.

B. Jurisdiction: This chapter applies to any land development activity or land disturbing activity within the boundaries of the city of Menomonie. No landowner or land operator may undertake a land development or land disturbing activity subject to this chapter without having met the performance standards set forth in this chapter and without having received a permit from the city building inspector, with assistance from the director of public works and city engineer, prior to commencing the proposed activity.

C. Exclusions. This ordinance is not applicable to:

1. Activities conducted by a state agency, as defined under section 227.01 (1), Wisconsin statutes, including transportation facility projects directed and supervised by the Wisconsin department of transportation.

2. A construction project that is exempted by federal statutes or regulations from the requirement to have a National Pollutant Discharge Elimination System (NPDES) permit issued under Chapter 40, Code of Federal Regulations, part 122, for land disturbing activity.

3. Nonpoint discharges from agricultural facilities and practices.

4. Nonpoint discharges from silviculture activities.

5. Routine maintenance for project sites under five (5) acres of land disturbance if performed to maintain the original line and grade, hydraulic capacity or original purpose of the facility.

6. Underground utility construction such as water, sewer and fiber optic lines. This exemption does not apply to the construction of any aboveground structures associated with utility construction.

9-11-5: **DEFINITIONS:**

ADMINISTERING AUTHORITY:	A governmental employee, empowered under section 62.234, Wisconsin statutes, that is designated by the common council to administer this chapter. In the case of this ordinance, the city of Menomonie has designated the city building inspector, with assistance of the director of public works and city engineer, to be the administering authority.
AGRICULTURAL FACILITY AND AGRICULTURAL PRACTICE:	Have the meaning given in section 281.16(1), Wisconsin statutes.
AVERAGE ANNUAL RAINFALL:	A calendar year of precipitation, excluding snow, which is considered typical.
BEST MANAGEMENT PRACTICES (or BMPs):	Practices, techniques, or measures that are effective in reducing flooding, removing pollutants, providing thermal mitigation, enhancing infiltration, and/or providing other benefits related to stormwater management.
BOARD OF APPEALS:	The body established under section 62.23(7)(e), Wisconsin statutes.
BUSINESS DAY:	A day the office of the administering authority is routinely and customarily open for business.
CEASE AND DESIST ORDER:	A court-issued order to halt land disturbing construction activity that is being conducted without the required permit or in violation of a permit issued by the city of Menomonie. [???
CITY:	The city of Menomonie

CITY BUILDING INSPECTOR:	The governmental employee designated by the common council to administer this chapter, and includes assistance from the director of public works and city engineer, and any other governmental employees designated by the city building inspector.
COMBINED SEWER SYSTEM:	A system for conveying both sanitary sewage and stormwater runoff.
CONNECTED IMPERVIOUSNESS:	An impervious surface that is directly connected to a separate stormsewer or water of the state via an impervious flow path.
DESIGN STORM:	A hypothetical discrete rainstorm characterized by a specific duration, temporal distribution, rainfall intensity, return frequency, and total depth of rainfall.
DETENTION:	The temporary detaining or storage of stormwater in reservoirs, on rooftops, in streets, parking lots, or other areas under predetermined and controlled conditions, with the rate of distance therefor regulated by appropriately installed devices.
DEVELOPMENT:	Residential, commercial, industrial or institutional land uses and associated roads.
DIRECT CONDUITS TO GROUNDWATER:	means wells, sinkholes, swallets, fractured bedrock at the surface, mine shafts, non-metallic mines, and tile inlets discharging to groundwater, quarries, or depressional groundwater recharge areas over shallow fractured bedrock.
EFFECTIVE INFILTRATION AREA:	The area of the infiltration system that is used to infiltrate runoff and does not include the area used for site access, berms or pretreatment.
EROSION OR SOIL EROSION:	The detachment process and movement of soil and rock fragments by which the land's surface is worn away by the action of wind, water, ice or gravity.
EXCAVATION:	Any act by which organic matter, earth, sand, gravel, rock, or any other similar material is cut

into, dug, quarried, uncovered, removed, displaced, relocated or bulldozed, and shall include the conditions resulting from the activity.

**EXCEPTIONAL
RESOURCE WATERS:**

Waters listed in NR 102.11, Wisconsin administrative code.

FILL:

Any act, by which earth, sand, gravel, rock, or any other material is deposited, placed, replaced, pushed, dumped, pulled, transported or moved by man to a new location and shall include the conditions resulting therefrom.

FINAL STABILIZATION: All land disturbing construction activities at the construction site have been completed and that a uniform perennial vegetative cover has been established with a density of at least seventy (70) percent of the cover for the unpaved areas and areas not covered by permanent structures or that employ equivalent permanent stabilization measures.

**FINANCIAL
GUARANTEE:**

A performance bond, maintenance bond, surety bond, irrevocable letter of credit, or similar guarantees submitted to the city by the responsible party to assure that requirements of this chapter are carried out in compliance with the stormwater management plan.

GOVERNING BODY:

The common council of the city of Menomonie.

GRADING:

Altering the elevation of the land surface by stripping, excavating, filling, stockpiling of soil materials or any combination thereof and shall include the land from which the material was taken or upon which it was placed.

HYDROCAD:

Hydrologic and routing model, published by HydroCAD Software Solutions, LLC, most recent version.

IMPERVIOUS SURFACE: An area that releases as runoff all or a large portion of the precipitation that falls on it, except for frozen soil. Rooftops, sidewalks, driveways, parking lots and streets are examples of areas that

typically are impervious. Gravel surfaces shall be considered impervious.

IN-FILL AREA:	An undeveloped area of land located within existing development.
INFILTRATION:	The process by which rainfall or surface runoff percolates or penetrates into the underlying soil.
INFILTRATION SYSTEM:	<p>A device or practice such as a basin, trench, rain garden or swale designed specifically to encourage infiltration, but does not include natural infiltration in pervious surfaces such as lawns, redirecting of rooftop downspouts onto lawns or minimal infiltration from practices, such as swales or roadside channels designed for conveyance and pollutant removal only.</p> <p>Infiltration systems shall have a bottom width of at least six (6) feet. Rain gardens shall be planted with vegetation to promote infiltration.</p>
KARST FEATURE:	An area or surficial geologic feature subject to bedrock dissolution so that it is likely to provide a conduit to ground water, and may include caves, enlarged fractures, mine features, exposed bedrock surfaces, sinkholes, springs, seeps or swallets.
LAND COVER:	The various cover types found on a specific parcel including impervious surface, green space, wooded area, parking lot, etc.
LAND DEVELOPMENT ACTIVITY:	Any construction of buildings, roads, parking lots, paved and unpaved storage areas and similar facilities, including agricultural facilities as defined in section 281.16(1), Wisconsin statutes.
LAND DISTURBING ACTIVITY:	Any manmade alteration of the land surface of public or private lands resulting in a change in the topography or existing vegetative or non-vegetative soil cover that may result in runoff and lead to an increase in soil erosion and movement of sediment within the city and into waters of the state. "Land disturbing activity" includes, but is not limited to, clearing and

grubbing, tilling, removal of vegetative cover, stockpiling of soil, demolition, excavating, pit trench dewatering, filling and grading activities, except that the term shall not include such minor land disturbing activities as home gardens and normal repair and maintenance of private roads. This term does not include agricultural practices as defined in section 281.16(1), Wisconsin statutes.

LAND OCCUPIER: Any person who holds title to land either as sole owner, a tenant in common or a joint tenant, or has title as a trustee, assignee, or has a land contract vendor's or vendee's interest.

LOT: A parcel of land having a width and depth sufficient to provide the space necessary for one main building and its accessory buildings, together with the open spaces required under title 10 of this code and abutting on a public street or officially approved place.

MAINTENANCE AND MONITORING AGREEMENT: A legal document that is filed with the county Register of Deeds as a property deed restriction, and which provides for long term maintenance of stormwater management practices.

MAXIMUM EXTENT PRACTICABLE (MEP): A level of implementing best management practices in order to achieve a performance standard specified in this chapter which takes into account the best available technology, cost effectiveness and other competing issues such as human safety and welfare, endangered and threatened resources, historic properties and geographic features. MEP allows flexibility in the way to meet the performance standards and may vary based on the performance standard and site conditions.

MIDS CALCULATOR: Hydrologic and water quality model, published by the Minnesota pollution control agency, most recent version.

NATURAL RESOURCES CONSERVATION The United States agency responsible for establishing standards for and design of many

SERVICE (or NRCS):	water quality structures and practices. The NRCS was formerly the soil conservation service or SCS.
NEW DEVELOPMENT:	Development resulting from the conversion of previously undeveloped land or agricultural land uses.
OFF SITE:	Located outside the property boundary described in the permit application for land development activity or land disturbing activity.
ON SITE:	Located within the property boundary described in the permit application for land development activity or land disturbing activity.
ORDINARY HIGH WATER MARK:	Has the meaning given in NR 115.03(6), Wisconsin administrative code.
OUTSTANDING RESOURCE WATERS	Waters listed in NR 102.10, Wisconsin administrative code.
PARCEL:	All contiguous lands under the ownership or control of a landowner, land occupier or land user.
PEAK RUNOFF RATE:	The maximum rate at which stormwater is discharged from a site as expressed in cubic feet per second.
PERCENT FINES:	The percentage of a given sample of soil, which passes through a no. 200 sieve.
PERFORMANCE STANDARD:	A narrative or measurable number specifying the minimum acceptable outcome for a facility or practice.
PERMIT:	A written authorization made by the administering authority to an applicant to conduct land development or land disturbing activities or to discharge post-construction runoff within the city and to waters of the state.
PERMIT ADMINISTRATION FEE:	A sum of money paid to the administering authority by the permit applicant for the purpose

	of recouping the expenses incurred by the authority in administering the permit.
PERMITTEE:	Any person to whom a permit is issued.
PERSON:	Has the meaning given in section 283.01(11), Wisconsin statutes.
PERVIOUS SURFACE:	An area that releases as runoff a small portion of the precipitation that falls on it. Lawns, gardens, parks, forests or other similar vegetated areas are examples of surfaces that typically are pervious.
POLLUTANT:	Has the meaning given in section 283.01(13), Wisconsin statutes.
POLLUTION:	Has the meaning given in section 281.01(10), Wisconsin statutes.
POSTCONSTRUCTION SITE:	A construction site following the completion of land development or land disturbing activities and final site stabilization.
PREDEVELOPMENT CONDITION:	The extent and distribution of land cover types present before the initiation of land development activity or land disturbing activity, provided that the current stormwater drainage system is sufficient to satisfy the requirements of this chapter. If the current stormwater drainage system is insufficient to satisfy the requirements of this chapter with respect to current existing land cover, "predevelopment condition" shall mean that extent and distribution of land cover types for which the current stormwater drainage system would be sufficient to satisfy the requirements of this chapter.
PREVENTIVE ACTION LIMIT:	Has the meaning given in NR 140.05(17), Wisconsin administrative code.
PROTECTIVE AREA:	Means an area of land that commences at the top of the channel of lakes, streams and rivers, or at the delineated boundary of wetlands, and that is the greatest of the widths defined in

[Sec. XXXX, where is this?] as measured horizontally from the top of the channel or delineated wetland boundary to the closest impervious surface. Protective area does not include any area of land adjacent to any stream enclosed within a pipe or culver, such that runoff cannot enter the enclosure at this location.

PUBLIC LANDS:	All publicly owned lands which are subject to regulation by the city including, but not limited to: A. All lands owned by the city. B. All lands which are owned by another unit of government, if that unit of government or the development project is legally subject to erosion and stormwater runoff control by the city under this chapter or by reference under other ordinances.
REDEVELOPMENT:	Areas where development is replacing older development.
REGIONAL POND:	A stormwater pond intended to serve multiple parcels and/or developments, thus eliminating the need for individual on site facilities.
REMOVAL:	Cutting vegetation to the ground or stumps, complete extraction or killing by spraying.
RESPONSIBLE PARTY:	Any entity holding fee title to the property or other person contracted or obligated by other agreement to implement and maintain post-construction stormwater BMPs.
RETENTION:	The permanent storage of stormwater without discharge.
RUNOFF:	The same as definition for stormwater runoff. [???
SAFE CAPACITY:	The rate of flow that can be handled by the receiving waterway without causing flooding or erosion damage.

SEDIMENT:	Solid material, both mineral and organic, that has been deposited by water, is in suspension in water, is being transported or has been removed from its site of origin by the processes of soil erosion or is discharged into surface waters from other sources.
SEDIMENTATION:	Settling or deposition of sediment.
SENSITIVE RESOURCES:	Natural resources that are sensitive to the impacts of urbanization, specifically including ground water, cold water springs, wetlands with diverse functions and values and other unique resources.
SEPARATE STORM SEWER:	<p>A conveyance or system of conveyances including roads with drainage systems, streets, catch basins, curbs, gutters, ditches, constructed channels or storm drains, which meets all of the following criteria:</p> <ul style="list-style-type: none"> A. Is designed or used for collecting water or conveying runoff. B. Is not part of a combined sewer system. C. Is not draining to a stormwater treatment device or system. D. Discharges directly or indirectly to waters of the state.
SITE:	The entire area included in the legal description of the land on which the land development or land disturbing activity occurred.
SITE RESTRICTION:	Any physical characteristic which limits the use of stormwater best management practices.
STOP WORK ORDER:	A method of giving notice to the permittee that one or more provisions of this chapter have been violated. Notice is given both by posting upon the lands where the disturbing activity occurs one or more copies of a poster stating the violation and by mailing a copy of this poster by certified mail

	to the permittee at the address shown on the permit. [???
STORM SEWER:	A closed conduit for conducting collected stormwater.
STORMWATER DRAINAGE SYSTEM OR DRAINAGE SYSTEM:	All facilities used for conducting runoff to, through or from a drainage area to the point of final outlet including, but not limited to, any of the following: conduits and appurtenant features, canals, channels, ditches, streams, culverts, reservoirs, detention basins, storm sewers, streets and pumping stations.
STORMWATER MANAGEMENT PLAN:	A comprehensive plan that identifies what actions will be taken to reduce stormwater quantity, volume, pollutant loads, thermal increases to the receiving stream and/or erosion resulting from land development activity to levels meeting the purpose and intent of this chapter and the water management plan.
STORMWATER MANAGEMENT SYSTEM PLAN:	A comprehensive plan designed to reduce the discharge of runoff and pollutants from hydrologic units on a regional or municipal scale.
STORMWATER RUNOFF:	That portion of the precipitation falling during a rainfall event, or that portion of snowmelt, that runs off the surface of the land and into the natural or artificial conveyance or drainage network. [???
TP:	The measure of all forms of phosphorus, dissolved or particulate, that are found in a sample.
TR-55:	The United States department of agriculture, natural resources conservation service (previously soil conservation service), "Urban Hydrology for Small Watersheds", second edition, technical release 55, June 1986.
TECHNICAL STANDARD:	A document that specifies design, predicted performance and operation and maintenance specifications for a material, device or method.

TOP OF THE CHANNEL:	An edge, or point on the landscape, landward from the ordinary high water mark of a surface water of the state, where the slope of the land begins to be less than twelve percent (12%) continually for at least fifty feet (50'). If the slope of the land is twelve percent (12%) or less continually for the initial fifty feet (50') landward from the ordinary high water mark, the top of the channel is the ordinary high water mark.
TRANSPORTATION FACILITY:	means a highway, a railroad, a public mass transit facility, a public-use airport, a public trail or any other public work for transportation purposes such as harbor improvements under section 85.095 (1)(b), Wisconsin statutes. "Transportation facility" does not include building sites for the construction of public buildings and buildings that are places of employment that are regulated by the Department pursuant to section 281.33, Wisconsin statutes.
TSS:	means total suspended solids.
TYPE II DISTRIBUTION:	A rainfall type curve as established in the "United States department of agriculture, soil conservation service, Technical Paper 149", published 1973. The type II curve is applicable to all of Wisconsin and represents the most intense storm pattern.
WPDES STORMWATER PERMIT:	A permit issued by the Wisconsin department of natural resources under section 283.31, Wisconsin statutes, that authorizes the point source discharge of stormwater to waters of the state.
WATERS OF THE STATE:	Has the meaning given in section 281.01(18), Wisconsin statutes.
WETLANDS:	An area where water is at, near, or above the land surface long enough to be capable of supporting aquatic or hydrophilic vegetation and which has soils indicative of wet conditions. These wetlands include natural, mitigated, and restored wetlands.

WINSLAMM:

Hydrologic and water quality model, published by
PV & Associates, most recent version.

9-11-6: **APPLICABILITY OF MAXIMUM EXTENT**

PRACTICABLE: Maximum extent practicable applies when a person who is subject to a performance standard of this ordinance demonstrates to the administering authority's satisfaction that a performance standard is not achievable and that a lower level of performance is appropriate. In making the assertion that a performance standard is not achievable and that a level of performance different from the performance standard is the maximum extent practicable, the responsible party shall take into account the best available technology, cost effectiveness, geographic features, and other competing interests such as protection of public safety and welfare, protection of endangered and threatened resources, and preservation of historic properties.

9-11-7: **TECHNICAL STANDARDS:** The following methods shall be used in designing the water quality, peak discharge, and infiltration components of storm water practices needed to meet the water quality standards of this ordinance:

- A. Consistent with the technical standards identified, developed or disseminated by the Wisconsin department of natural resources under subchapter V of chapter NR 151, Wisconsin administrative code.
- B. Where technical standards have not been identified or developed by the Wisconsin department of natural resources, other technical standards may be used provided that the methods have been approved by the administering authority.

9-11-8: **LAND-DISTURBING ACTIVITIES SUBJECT TO
STORMWATER MANAGEMENT: [Should caption
include land development activity?]**

- A. Unless otherwise exempted by section 9 of this chapter, a stormwater management permit shall be required, and the stormwater management provisions of this chapter shall apply, for the following activities within the City:

1. New Development. Any development(s) commenced after the adoption date of this ordinance that either:

a. Results in the addition of ten thousand (10,000) square feet or more of new impervious surface to the site; or,

b. Arises from the development of a previously developed or partially developed site(s) and results in a new site(s) condition with a total cumulative addition of ten thousand (10,000) square feet or more of new impervious surface shall meet all the provisions of this chapter.

2. Redevelopment. Any development commenced after the adoption date of this ordinance that results in ten thousand (10,000) square feet or more of new and/or fully reconstructed impervious surface shall meet the stormwater management performance standards of this chapter.

3. Other Land Development Activities. Any development activity, including but not limited to the redevelopment or alteration of existing buildings and other structures, which the city determines may exceed the safe conveyance capacity of the existing drainage facilities and/or receiving body, significantly increase downstream runoff volumes, flooding, soil erosion, water pollution or property damage, or significantly impact a lake, stream, wetland, or other sensitive area, shall meet all the provisions of this chapter.

4. Site Disturbance/Grading. Any land disturbance equal to or greater than one (1) acre, regardless of the amount of impervious area that is part of the project after construction, shall be subject to **(Sec. X)** **[Where is this?]** and all the provisions of **(Sec. X)**. **[Where is this?]**

5. Street Construction. Any street construction or reconstruction exceeding ten thousand (10,000) square feet of new impervious area that is not directly associated with a new plat or certified survey map (CSM) development is subject to **(Sec. X)**. **[Where is this?]** Sidewalks and trails are not included in this requirement.

A. The following activities are exempt from all the requirements of this ordinance:

1. Any activity directly related to the planting, growing and harvesting of agricultural crops;
2. Emergency work necessary to protect life, limb, or property.

9-11-10: **PERMIT REVIEW PROCESS:**

- A. Pre-application Meeting: The city shall hold a mandatory pre-application meeting with the applicant, administering authority (or their authorized representative), and staff of relevant partner agencies prior to submission of the permit application. The purposes of the meeting are to understand the general parameters of the proposed project and to convey the requirements of meeting the provisions of the ordinance.
- B. Application Fee: An application for a stormwater management permit shall be accompanied by a permit administration fee. The fee shall be established by resolution of the common council and may from time to time be modified by resolution of the common council. A schedule of such fees shall be available for review in the office of the city building inspector.
- C. Application Completeness Review: The city shall make a determination regarding the completeness of a permit application within ten (10) business days of the receipt of the application and notify the applicant in writing if the application is not complete including the reasons the application was deemed incomplete.
- D. Application Review: The applicant shall not commence any construction activity subject to this ordinance until a permit has been authorized. A complete review of the permit application shall be done within ten (10) business days of the receipt of a complete permit application from the applicant. The city will work with the necessary state, county, and local agencies to complete the review. The city shall review all information in the permit application including proposed stormwater practices, hydrologic models, and design methodologies and certify compliance with this ordinance. The administering

authority may request additional information from the applicant. If additional information is submitted, the administering authority shall have ten (10) business days from the date the additional information is received to inform the applicant that the stormwater management plan and maintenance agreement are either approved or disapproved.

- E. Permit Authorization: If the city determines that the application meets the requirements of this ordinance, the city may issue approval authorizing the project or activity. The approval shall be valid for two years. Approval will be in written form to the applicant.
- F. Permit Denial: If it is determined that the application does not meet the requirements of this ordinance the application shall be denied. If the application is denied, the applicant shall be notified of the denial in writing including reasons for the denial. Once denied, a new application must be resubmitted for approval before any activity may begin. All land use and building permits shall be suspended until the applicant has an authorized permit.
- G. Modification of Permitted Plans: The applicant must amend an approved stormwater plan to include additional requirements such as additional or modified BMPs designed to correct problems whenever:
 - 1. There is a change in design, construction, operation, maintenance, weather or seasonal conditions that has a significant effect on the discharge of pollutants to surface water or underground water.
 - 2. Inspections or investigations by site operators, local, state or federal officials indicate the plans are not effective in eliminating or significantly minimizing the discharge of pollutants to surface water or underground water or that the discharges are causing water quality standard exceedances.
 - 3. The plan is not achieving the general objectives of minimizing pollutants in stormwater discharges associated with construction activity.
- H. Permit Completion: Before work under the permit is deemed complete, the permittee must submit as-builts, a long term maintenance plan and

information demonstrating that the stormwater facilities conform to design specifications.

9-11-11: **SITE DESIGN AND MIDS CALCULATOR:**

A. Better Site Design: New development projects should be designed using the concepts of Better Site Design as developed by the Center for Watershed Protection. Better Site Design involves techniques applied early in the design process to preserve natural areas, reduce impervious cover, distribute runoff and use pervious areas to more effectively treat stormwater runoff. Site design should address open space protection, impervious cover minimization, and runoff distribution and minimization, and runoff utilization through considerations such as:

1. Open Space Protection and Restoration.

- a. Conservation of existing natural areas (upland and wetland).
- b. Reforestation.
- c. Re-establishment of prairies.
- d. Restoration of wetlands.
- e. Establishment or protection of stream, shoreline and wetland buffers.
- f. Re-establishment of native vegetation into the landscape.

2. Reduction of Impervious Cover.

- a. Reduce new impervious through redevelopment of existing sites and use of existing roadways, trails etc.
- b. Minimize street width, parking space size, driveway length, sidewalk width.

c. Reduce impervious surface footprint (e.g. two story buildings, parking ramp).

3. Distribution and Minimization of Runoff.

a. Utilize vegetated areas for stormwater treatment (e.g. parking lot islands, vegetated areas along property boundaries, front and rear yards, building landscaping).

b. Direct impervious surface runoff to vegetated areas or to designed treatment areas (roofs, parking, driveways drain to pervious areas, not directly to storm sewer or other conveyances).

c. Encourage infiltration and soil storage of runoff through grass channels, soil compost amendment, vegetated swales, raingardens, etc.

d. Plant vegetation that does not require irrigation beyond natural rainfall and runoff from the site.

4. Runoff utilization.

a. Capture and store runoff for use for irrigation in areas where irrigation is necessary

B. MIDS Calculator: Final site design and choice of permanent stormwater volume reduction practices should be based on outcomes of the MIDS Calculator (or other model that shows the performance goal can be met) and shall meet the performance goals in section 12 of this chapter.

9-11-12: STORMWATER PERFORMANCE GOALS:

A. Stormwater Management Volume Control:

1. New Development Volume Control. For new, nonlinear developments that create more than ten thousand (10,000) square feet of new impervious surface on sites without restrictions, stormwater runoff volumes will be controlled and the post construction runoff

volume shall be retained on site for 1.1 inches of runoff from all new impervious surfaces on the site.

2. Redevelopment Volume Control. Nonlinear redevelopment projects on sites without restrictions that create more than ten thousand (10,000) square feet of new and/or fully reconstructed impervious surfaces shall capture and retain on site 1.1 inches of runoff from the net increase in impervious surfaces and 0.55 inches of runoff from all fully reconstructed impervious surfaces.

3. Linear Development Volume Control. Linear projects on sites without restrictions that create more than ten thousand (10,000) square feet of new connected impervious surfaces, shall capture and retain:

a. 1.1 inches of runoff from the net increase in impervious area on the site

b. Mill and overlay and other resurfacing activities are not considered fully reconstructed.

B. Flexible Treatment Options for Sites With Restrictions:

1. Applicant shall fully attempt to comply with the appropriate performance goals described above. Options considered and presented shall examine the merits of relocating project elements to address, varying soil conditions and other constraints across the site. If full compliance is not possible due to any of the factors listed below, the applicant must document the reason. If site constraints or restrictions limit the full treatment goal, the following flexible treatment options shall be used.

2. Applicant shall document the flexible treatment options sequence starting with Alternative #1. If Alternative #1 cannot be met, then Alternative #2 shall be analyzed. Applicants must document the specific reasons why Alternative #1 cannot be met based on the factors listed below. If Alternative #2 cannot be met then Alternative #3 shall be met. Applicants must document the specific reasons why Alternative #2 cannot be met based on the factors listed below. When all of the

conditions are fulfilled within an alternative, this sequence is completed.

3. Volume reduction techniques considered shall include infiltration, reuse and rainwater harvesting, and canopy interception and evapotranspiration and/or additional techniques included in the MIDS calculator. Higher priority shall be given to BMPs that include volume reduction. Secondary preference is to employ filtration techniques, followed by rate control BMPs. Factors to be considered for each alternative will include:

- a. Karst geology
- b. Shallow bedrock
- c. High groundwater
- d. Hotspots or contaminated soils
- e. Drinking Water Source Management Areas or within four hundred (400) feet of drinking water well
- f. Zoning, setbacks or other land use requirements
- g. Poor soils (infiltration rates that are too low or too high, problematic urban soils)

4. Alternative #1: Applicant attempts to comply with the following conditions:

- a. Achieve volume reduction to the maximum extent practicable.
- b. Remove seventy-five percent (75%) of the annual TP load from all impervious surfaces if the site is new development or from the new and/or fully reconstructed impervious surfaces for a redevelopment site.

c. Options considered and presented shall examine the merits of relocating project elements to address, varying soil conditions and other constraints across the site.

5. Alternative #2: Applicant attempts to comply with the following conditions:

a. Achieve volume reduction to the maximum extent practicable.

b. Remove sixty percent (60%) of the annual TP load from all impervious surfaces if the site is new development or from the new and/or fully reconstructed impervious surfaces for a redevelopment site.

c. Options considered and presented shall examine the merits of relocating project elements to address, varying soil conditions and other constraints across the site.

6. Alternative #3: Off-site Treatment. Mitigation equivalent to the performance of 1.1 inches of volume reduction for new development or redevelopment as described above in this section, (including banking or cash) can be performed off-site to protect the receiving water body. Off-site treatment shall be achieved in areas selected in the following order of preference:

a. Locations that yield benefits to the same receiving water that receives runoff from the original construction activity.

b. Locations within the same department of natural resources catchment area (Hydrologic Unit 08) as the original construction activity.

c. Locations within the next adjacent catchment area upstream.

d. Locations anywhere within the city.

C. Stormwater Management Rate Control:

1. For all development sites (new development, redevelopment and linear development) the site design shall provide on-site treatment during construction and post-construction to ensure no increase in offsite peak discharge for the one (1) year twenty-four (24) hour storm event, two (2) year, twenty-four (24) hour storm event, the ten (10) year, twenty-four (24) hour storm event, and the one hundred (100) year, twenty-four (24) hour storm event. The runoff curve members in section 13 B. 6. e. of this chapter shall be used to represent the actual predevelopment condition. Credit will be given for volume reduction accomplished through infiltration.

2. The National Oceanic and Atmospheric Administration (NOAA) Atlas 14 Precipitation Frequency Estimates for precipitation depth shall be used for determining compliance with the peak flow requirements. The Natural Resources Conservation Service (NRCS) – Wisconsin has calculated county-specific Atlas 14 precipitation depths and they are to be used in combination with the appropriate NRCS MSE3 or MSE4 precipitation distribution. The NRCS calculated county-specific Atlas 14 precipitation depths and MSE3 and MSE4 precipitation distributions are available at: http://www.nrcs.usda.gov/wps/portal/nrcs/detail/wi/technical/engineering/?cid=nrcs142p2_25417

9-11-13: STORMWATER MANAGEMENT PLAN:

A. Management Report Required:

1. Every applicant for a stormwater management permit shall submit a Stormwater Management Plan documenting the system(s) and measures proposed to control stormwater runoff from the site. The stormwater management report shall be completed and sealed by a Professional Engineer currently licensed in the state of Wisconsin.

2. Evidence of Financial Responsibility. The city may require a financial security instrument sufficient to guarantee complete construction of the stormwater management systems proposed in the management report.

B. Report Materials: Stormwater management reports shall satisfy all of the requirements of this chapter and shall provide at a minimum the following information:

1. Name, address, and telephone number for the following or their designees: landowner; developer; project engineer for practice design and certification; person(s) responsible for installation of storm water management practices; and person(s) responsible for maintenance of storm water management practices prior to the transfer, if any, of maintenance responsibility to another party;
2. Identification of the entity responsible for long-term maintenance of the project;
3. A narrative describing the proposed project, including implementation schedule for planned practices;
4. A proper legal description of the property proposed to be developed, referenced to the U.S. Public Land Survey system or to block and lot numbers within a recorded land subdivision plat.
5. One or more site maps using a legible scale. The site maps shall show the following: site location and legal property description; predominant soil types and hydrologic soil groups; existing cover type and condition; topographic contours of the site; topography and drainage network including enough of the contiguous properties to show runoff patterns onto, through, and from the site; watercourses that may affect or be affected by runoff from the site; flow path and direction for all storm water conveyance sections; watershed boundaries used in hydrology determinations to show compliance with performance standards; lakes, streams, wetlands, channels, ditches, and other watercourses on and immediately adjacent to the site; limits of the one hundred (100) year floodplain; location of wells and wellhead protection areas covering the project area and delineated pursuant to NR 811.16, Wisconsin administrative code.
6. A summary of runoff peak flow rate calculations, by watershed area, including all of the following:

- a. Pre-existing peak flow rates;
- b. Post-construction peak flow rates with no detention;
- c. Post-construction peak flow rates with detention;
- d. Time of concentration (T_c) used in calculations;
- e. Assumed runoff curve numbers (RCNs), which shall be consistent with the following table for predevelopment conditions:

	Hydrologic Soil Group			
	A	B	C	D
Woodland	30	55	70	77
Grassland	39	61	71	78
Cropland	51	68	78	83

7. A complete site plan and specifications, sealed by the Professional Engineer who designed the stormwater management system(s) and measures. All plans and specifications shall be drawn to a legible scale, shall be clearly labeled, and shall include, at a minimum, all of the following information:

- a. Explanation of the provisions to preserve and use natural topography and land cover features to minimize changes in peak flow runoff rates and volumes to surface waters and wetlands.
- b. Explanation of any restrictions on storm water management measures in the development area imposed by wellhead protection plans and ordinances.
- c. One or more site maps using a legible scale showing the following: post-construction pervious areas including vegetative cover type and condition; impervious surfaces including all buildings, structures, and pavement; post-construction topographic contours; post-construction drainage network including enough of the contiguous properties to show runoff patterns onto, through, and from the site; locations and dimensions of drainage easements; locations of maintenance easements specified in the maintenance agreement; flow path and direction for all storm water conveyance sections; location and

type of all storm water management conveyance and treatment practices, including the on-site and off-site tributary drainage area; location and type of conveyance system that will carry runoff from the drainage and treatment practices to the nearest adequate outlet such as a curbed street, storm drain, or natural drainage way; watershed boundaries used in hydrology and pollutant loading calculations and any changes to lakes, streams, wetlands, channels, ditches, and other watercourses on and immediately adjacent to the site.

d. All natural and artificial water features, including, but not limited to lakes, ponds, streams (including intermittent streams), and ditches. Show ordinary high water marks of all navigable waters, one hundred (100) year flood elevations and delineated wetland boundaries, if any. If not available, appropriate flood zone determination or wetland delineation, or both, may be required at the applicant's expense.

e. Depth to bedrock;

f. Depth to seasonal high water table;

g. The extent and location of all soil types as described in the Dunn County Soil Survey, slopes exceeding twelve percent (12%), and areas of natural woodland or prairie;

h. Existing and proposed elevations;

i. Elevations, sections, profiles, and details as needed to describe all natural and artificial features of the project;

j. Soil erosion control and overland runoff control measures, including runoff calculations as appropriate;

k. Detailed construction schedule indicating the anticipated starting and completion dates of the development sequence;

l. Copies of permit or permit applications required by any other governmental entities or agencies;

m. Any other information necessary to reasonably determine the location, nature and condition of any physical or environmental features;

n. Location of all stormwater management practices;

o. All existing and proposed drainage features;

p. The location and area of all proposed impervious surfaces;

q. The limits and area of the disturbed area;

r. Seeding mixtures and rates, lime and fertilizer application rates, and kind and quantity of mulching for both temporary and permanent vegetative control measures.

s. Engineering designs and detailed drawings for all structural management practices;

t. A description of methods to control oil and grease or written justification for not providing such control;

u. If required the plans to control the temperature of runoff;

v. A maintenance plan and schedule for all permanent stormwater management practices as recorded on the affidavit required in section 14 D. of this chapter.

w. A completion date for all proposed stormwater management devices to be constructed and in service on the site. Failure to complete the project and bring the devices into service by the approved date shall constitute a violation of this section.

x. Cost estimates for the construction, operation, and maintenance of each storm water management practice.

y. Other information requested in writing by the city to determine compliance of the proposed storm water management measures with the provisions of this ordinance.

- C. Discharge Off-Site to Other Private Lands: When a site being reviewed by the city proposes to continue existing drainage patterns and discharge stormwater runoff onto property neither under the applicant's control (via ownership, easement or agreement) nor onto publicly owned property, the city shall require the applicant to provide documentation that they have made significant efforts to obtain the right to discharge this stormwater onto this property. If no right can be obtained, the applicant shall be required to mitigate the increased volume of discharge on their property prior to making this discharge. Mitigation shall consist of implementation of a stormwater practice that shall match the existing volumetric discharges from the applicant's property to other lands not under their control in storm events including the one (1) year, two (2) year, five (5) year and ten (10) year storm events.
- D. Outlets: Discharges from construction sites must have a stable outlet capable of carrying designed flow as required in section 12 C. 1. of this chapter, at a non-erosive velocity. Outlet design must consider flow capacity and flow duration. This requirement applies to both the site outlet and the ultimate outlet to stormwater conveyance or water body.
- E. Emergency Overland Flow: Emergency overland flow for all stormwater facilities shall be provided during and after construction to prevent exceeding the safe capacity of downstream drainage facilities and prevent endangerment of downstream property or public safety;
- F. Maintenance Access: All facilities shall be designed to provide a minimum of a ten foot (10') wide access to the facility for future maintenance;
- G. Infiltration: All plats, certified survey maps, development, and redevelopment projects which create a cumulative total of ten thousand (10,000) square feet or more of new impervious area are required to provide infiltration of stormwater as set forth in this ordinance. The stormwater management reports shall comply with the sections entitled "Criteria" within the applicable Infiltration Technical Standards as provided by the Wisconsin department of natural resources and maintained by the Standards Oversight Council. A link to the technical standards is provided as follows: <http://dnr/wi.gov/runoff/stormwater/>

techstds.htm. Stormwater infiltration practices shall comply with the following:

1. Distributed Best Management Practices. If the applicant proposes to use distributed practices (e.g. rain gardens) to meet infiltration requirements, a deed restriction and maintenance agreement will be required. These shall be recorded against individual parcels. If these devices are utilized to meet infiltration requirements, no credit shall be given towards the volume requirements for Runoff Rate Control--Hydrologic Calculations or Design Standards, in section 12 C. 1. of this chapter.
2. Pre-Treatment. Prior to infiltration of runoff from parking lots, new road construction (in commercial, industrial and institutional areas), the runoff shall be pre-treated. This pre-treatment shall be in accord with the applicable Standards Oversight Council Technical Standard. Infiltration systems designed in accordance with this section shall, to the extent technically and economically feasible, minimize the level of pollutants infiltrating to the groundwater and shall maintain compliance with the prevention action limits at a point of standards application in accordance with NR 140, Wisconsin administrative code, for all pollutants excepting chloride. Further, if site-specific information indicates that compliance with the applicable prevention action limit is not achievable, the infiltration device shall not be installed or shall be modified to prevent infiltration to the maximum extent practicable.
3. Prohibitions. Infiltration systems shall not be installed in any of the following areas:
 - a. Areas associated with Tier 1 industrial facilities as identified in NR 216.21(2)(a), Wisconsin administrative code. Runoff from rooftops may be infiltrated with the concurrence of the regulatory authority.
 - b. Storage and loading areas of Tier 2 industrial facilities as identified in NR 216.21(2)(b), Wisconsin administrative code.
 - c. Fueling and vehicle maintenance areas. These areas shall have BMPS designed, installed and maintained to reduce petroleum

within runoff, so that the runoff that enters waters of the state contains no visible petroleum sheen, or to the maximum extent practicable. Runoff from rooftops may be infiltrated with the concurrence of the administering authority.

4. Exemptions. Runoff from the following areas may be credited toward meeting the requirement when infiltrated, but the decision to infiltrate runoff from these source areas is optional:

a. Parking areas and access roads less than five thousand (5,000) square feet for commercial development.

b. Parking areas and access roads less than five thousand (5,000) square feet for industrial development not subject to the Prohibitions in section 13 G. 3. of this chapter.

c. In-fill development areas less than five (5) acres.

d. Roads on commercial industrial and institutional land uses, and arterial residential roads.

5. Location of Practices. Infiltration practices shall not be located in the following areas:

a. Areas with less than five (5) feet of separation distance from the bottom of the infiltration system to the elevation of the seasonal high groundwater or the top of bedrock for industrial, commercial or institutional parking lots and roads, and for residential arterial roads.

b. Areas with less than three (3) feet of separation distance from the bottom of the infiltration system to the elevation of the seasonal high groundwater or the top of bedrock for all other source areas not identified in subsection 5. a., above.

c. Areas with less than one (1) foot of separation distance from the bottom of the infiltration practice to the elevation of the seasonal high groundwater or top of bedrock for roofs draining to subsurface drainage systems.

d. Areas within one thousand (1,000) feet upgradient or within one hundred (100) feet downgradient of direct conduits to groundwater.

e. Areas where infiltrated water will contain runoff from commercial, industrial, or institutional land uses or regional infiltration devices serving residential development, where the proposed infiltration device is within four hundred (400) feet of a community water system well as specified in NR 811.16(4), Wisconsin administrative code.

f. Areas where contaminants of concern, as defined in NR 720.03(2), Wisconsin administrative code are present in the soil through which infiltration will occur.

6. Infiltration Rate Exemptions. Infiltration practices located in the following areas may be credited toward meeting the requirements under the following conditions, but the decision to infiltrate under these conditions is optional:

a. Where the infiltration rate measured at the proposed bottom of the infiltration system is less than 0.6 inches per hour using a scientifically credible field test method.

b. Where the least permeable soil horizon to five (5) feet below the proposed bottom of the infiltration system using the United States department of agriculture method of soils analysis is one of the following: sandy clay loam, silty clay loam, sandy clay, silty clay or clay.

7. Alternative Uses. Where alternate uses of runoff are employed, such as for toilet flushing, laundry or irrigation, such alternate use shall be given equal credit toward the infiltration volume required by this section.

8. Thermal Control. The stormwater management report shall include provisions and practices to reduce the temperature of runoff for sites located within the watershed of a river or stream identified by the Wisconsin department of natural resources as a Cold Water Community through NR 102.04(3)(a), Wisconsin administrative code, and Class I,

Class II, and Class III Trout Streams identified in "Wisconsin Trout Streams," Wisconsin department of natural resources publication PUB-FH-806 2002, <http://dnr.wi.gov/fish/species/trout/Wisconsintroutstreams.pdf>, or its successor.

- H. Protective Areas. Impervious surfaces shall not be constructed in protective areas to the maximum extent practicable. The stormwater management report shall contain a written site-specific explanation for any parts of the protective area that are disturbed. Where land disturbance occurs within the protective area and where no impervious surface is present, adequate sod or self-sustaining vegetative cover of seventy percent (70%) of the disturbed area or greater shall be established and maintained. The adequate sod or self-sustaining cover shall be sufficient to provide for bank stability, maintenance of fish habitat, and filtering of pollutants from upslope overland flow areas under sheet flow condition. Non-vegetative materials such as rock riprap, may be employed on the bank as necessary to prevent erosion such as on steep slopes or where high velocity flows occur. Best management practices such as filter strips, swales, or wet detention ponds designed to control pollutants from non-point sources, may be located in the protective area.
1. For outstanding resources waters and exceptional resources waters and for wetlands in areas of special natural resource interest as specified in NR 103.04, Wisconsin administrative code -- the protective distance is seventy-five (75) feet.
 2. For perennial and intermittent streams identified on a United States Geological Survey 7.5 minute series topographic map, or on a county soil survey map, which is more current -- the protective distance is fifty (50) feet.
 3. For lakes -- the protective distance is fifty (50) feet.
 4. For highly susceptible wetlands -- the protective distance is seventy five (75) feet. Highly susceptible wetlands include the following: calcareous fens, sedge meadows, open and coniferous bogs, low prairies, coniferous swamps, lowland hardwood swamps and ephemeral ponds.

5. For less susceptible wetlands -- the protective distance is ten percent (10%) of the average wetland width, but not less than ten (10) feet not more than thirty (30) feet. Less susceptible wetlands include: degraded wetlands dominated by invasive species such as reed canary grass; cultivated hydric soils; and any gravel pits or dredged material or fill material disposal sites that take on the attributes of a wetland.
6. For wetlands not subject to subsections 4. or 5., above, the distance shall be fifty (50) feet.
7. Determinations of the extent of the protective area adjacent to wetlands shall be made on the basis of the sensitivity and runoff susceptibility of the wetland in accordance with the standards and criteria in NR 103.03, Wisconsin administrative code.
8. Wetland boundary delineation shall be made in accordance with current Wisconsin department of natural resources procedures. This paragraph does not apply to wetlands that have been completely filled in compliance with all applicable state and federal regulations. The protective area for wetlands that have been partially filled in compliance with all applicable state and federal regulations shall be measured from the wetland boundary delineation after the fill has been placed. Where there is a legally authorized wetland fill, the protective standard need not be met in that location.
9. For concentrated flow channels with drainage areas greater than one hundred thirty (130) acres -- the protective distance is ten (10) feet.
10. The greatest protective area width shall apply where rivers, streams, lakes and wetlands are contiguous.
11. Redevelopment post-construction sites are exempt from the protective area requirements.
12. In-fill development areas less than five (5) acres, structures that cross or access surface waters, structures constructed in accordance with title 13 of this code, and areas of post construction sites from which the runoff does not enter the surface water, including wetlands, without first being treated by a BMP to meet the ordinance

requirements for pollutant and peak flow reduction, except to the extent that vegetative ground cover is necessary to maintain bank stability, are exempt from the protective area requirements.

- I. Off-Site Stormwater Management. Off-site or regional treatment stormwater management is allowed, provided that all of the following conditions for the off-site facility are met:

1. The facility is in place.
2. The facility is designed and adequately sized to provide a level of stormwater management that at least meets the ordinance standards.
3. The facility has a legally obligated entity responsible for its long-term operation and maintenance.

Where a regional treatment option exists such that the administering authority exempts the applicant from all or part of the minimum on-site stormwater management requirements, applicant shall be required to pay a fee in the amount determine in negotiation with the administering authority. In determining the fee for post construction runoff, the administering authority shall consider an equitable distribution of the cost for land, engineering design, construction and maintenance of the regional treatment option.

- J. Maintenance Agreement. A maintenance agreement between the administering authority and the responsible party designated to provide for maintenance of stormwater practices beyond the duration period of this permit shall be required for all private stormwater facilities. The maintenance agreement shall be filed with the Dunn County register of deeds as a property deed restriction so that it is binding upon all subsequent owners of the land served by the stormwater management practices. The maintenance agreement shall contain the following information and provisions and be consistent with the maintenance plan required in section 14 D. of this chapter.

1. Identification of the stormwater facilities and designation of the drainage area served by the facilities.

2. A schedule for regular maintenance of each aspect of the stormwater management system consistent with the stormwater management plan required under section 14 D. of this chapter.
3. Identification of the responsible party(s) responsible for long term maintenance of the stormwater management practices identified in the stormwater management plan required under section 14 D. of this chapter.
4. Requirement that the responsible party(s) shall maintain stormwater management practices in accordance with the schedule included in subsection 2., above.
5. Authorization for the administering authority to access the property to conduct inspections of stormwater management practices as necessary to ascertain that the practices are being maintained and operated in accordance with the agreement.
6. A requirement on the administering authority to maintain public records of the results of the site inspections, to inform the responsible party responsible for maintenance of the inspection results, and to specifically indicate any corrective actions required to bring the stormwater management practice into proper working condition.
7. Agreement that the party designated under subsection 3., above, as responsible for long term maintenance of the stormwater management practices, shall be notified by the administering authority of maintenance problems which require correction. The specified corrective actions shall be undertaken within a reasonable time frame as set by the administering authority.
8. Authorization of the administering authority to perform the corrected actions identified in the inspection report if the responsible party **[designated under section 16 of this chapter]** does not make the required corrections in the specified time period. The administering authority shall enter the amount due on the tax rolls and collect the money as a special charge against the property pursuant to subch. VII of chapter 66, Wisconsin statutes.

- K. **Installation Certification.** Each applicant who is granted a stormwater management permit, and who has signed and recorded the required maintenance agreement, shall submit to the city engineer certification and as built drawings that the BMPs referred to in the stormwater management report have been installed in accord with the plans and specifications of that report. This certification shall be provided and sealed by a Professional Engineer currently licensed in the State of Wisconsin, on forms available from the city.

The City of Menomonie stormwater management permit shall not be closed without submission of this certification. This certification shall serve as Official Notice of Termination by the applicant with regard to the stormwater management permit, and shall trigger a final site inspection by the administering authority. Upon completion of this inspection, a notice of permit closure and reminder to the applicant of the annual stormwater management report requirement shall be sent and the stormwater management permit shall be closed.

9-11-14: **INSPECTIONS AND MAINTENANCE:**

- A. **Applicant Responsibilities:** The applicant is responsible for inspections and record keeping during and after construction for all privately-owned stormwater treatment practices on the site.
- B. **City Inspections:** The city reserves the right to conduct inspections on a regular basis to ensure that both temporary and permanent stormwater management and erosion and sediment control measures are properly installed and maintained prior to construction, during construction, and at the completion of the project. Mandatory inspections be conducted as follows:
1. Before any land disturbing activity begins.
 2. Before or during the installation of permanent stormwater treatment systems.
 3. At the completion of the project.
 4. Prior to the release of financial guarantees.

C. Right of Entry and Inspection: The issuance of a permit constitutes a right-of-entry for the administering authority or its contractor to enter upon the construction site. The applicant shall allow the administering authority and their authorized representatives, upon presentation of credentials, to:

1. Enter upon the permitted site for the purpose of obtaining information, examination of records, conducting investigations or surveys.
2. Bring such equipment upon the permitted development as is necessary to conduct such surveys and investigations.
3. Examine and copy any books, papers, records, or memoranda pertaining to activities or records required to be kept under the terms and conditions of the permit.
4. Inspect the stormwater pollution control measures.
5. Sample and monitor any items or activities pertaining to stormwater pollution control measures.
6. Correct deficiencies in stormwater and erosion and sediment control measures.

D. Long term inspection and maintenance of stormwater facilities.

1. Private Stormwater Facilities.

a. Maintenance Plan Required. No private stormwater facilities may be approved unless a maintenance plan is provided that defines who will conduct the maintenance, the type of maintenance and the maintenance intervals. At a minimum, all private stormwater facilities shall be inspected annually and maintained in proper condition consistent with the performance goals for which they were originally designed.

b. Facility Access. Access to all stormwater facilities must be inspected annually and maintained as necessary. The applicant shall obtain all necessary easements or other property interests to allow access to the facilities for inspection or maintenance for both the responsible party and the community.

c. Removal of Settled Materials. All settled materials including settled solids, shall be removed from ponds, sumps, grit chambers, and other devices, and disposed of properly.

d. Inspections. All stormwater facilities within the community shall be inspected by the administering authority during construction, during the first year of operation, and at least once every five (5) years thereafter.

e. Annual Stormwater Management Report. Each applicant who is granted a stormwater management permit, and who has signed and recorded the required maintenance agreement, shall submit to the administering authority an annual report on the condition of the site's stormwater management devices. This report shall be submitted by June 1 of each year following closure of the stormwater management permit required under section 13 K of this chapter. The annual report shall be completed and sealed by a Professional Engineer currently licensed in the state of Wisconsin, on forms provided by the administering authority. The requirement that the annual report be sealed by a Professional Engineer may be omitted in the case of a stormwater management plan consisting solely of storm sewer inlet filters and/or catch basin sumps, provided that the applicant can provide the appropriate documentation and dated photos as outlined in **Sec. XXXX. [Where is it?]** For sites with more extensive stormwater management systems, the city may allow other appropriately credentialed professionals to complete this work at their discretion. **[???**

f. For sites that have a stormwater management device (or devices) that require a topographic survey every three years, this survey requirement may be satisfied through the submittal of adequate photographic documentation. The acceptance of date stamped photographs in lieu of a topographic survey is at the discretion of the

city. The topographic survey requirement waiver may only be applied to qualifying detention or infiltration basins.

g. Upon receipt of the annual report, if requested on the cover letter accompanying the report or by separate email, the administering authority shall provide an email response to the contact listed on the reporting forms stating that the report was received. This response shall be made within fifteen (15) business days of receiving the report. The annual report shall include the following:

h. Documentation of the completion of the required annual maintenance, including copies of receipts (actual prices paid need not be reported) from agents hired to perform the work and the date the work was completed;

i. Photos of the management device at the time of inspection. This shall include photos of existing conditions and photos after the completion of any required maintenance.

2. Public stormwater facilities.

a. Acceptance of Publicly Owned Facilities. Before work under the permit is deemed complete; the permittee must submit as-builts and a maintenance plan demonstrating at the time of final stabilization that the stormwater facilities conform to design specifications. A final inspection shall be required before the city accepts ownership of the stormwater facilities.

b. Inventory of Stormwater Facilities. Upon adoption of this ordinance, the administering authority shall inventory and maintain a database for all public stormwater facilities within the city requiring maintenance to assure compliance with this ordinance. The city shall notify owners of public stormwater facilities of the need for conducting maintenance on an appropriate schedule based on the stormwater management practice.

c. Maintenance. The administering authority shall perform maintenance of publicly owned stormwater facilities in accordance with their comprehensive stormwater management plan and other regulatory requirements.

9-11-15: **FINANCIAL GUARANTEES:**

- A. The administering authority **[may]** require financial guarantees from the applicant in an amount sufficient to cover the 110% of the estimated costs of permitted and remedial work based on the final design as established in a set financial guarantee schedule determined by the city.
- B. Financial guarantees shall not be released until all permitted and remedial work is completed.
- C. Financial guarantees may be used by the city to complete work not completed by the applicant.
- D. The form of the guarantees shall be one or a combination of the following to be determined by the city:
 - 1. Cash deposit. The first \$100.00 of the financial guarantee shall be by cash deposit to the city. The cash will be held in a separate account.
 - 2. Securing deposit. Deposit, either with the city, a responsible escrow agent, or trust company, at the option of the city, either:
 - a. An irrevocable letter of credit or surety bond of the kind approved for securing deposits of public money or other instruments of credit from one or more financial institutions, subject to regulation by the state and federal government wherein said financial institution pledges funds are on deposit and guaranteed for payment.
 - b. Cash in U.S. currency.
 - c. Other forms of guarantees (e.g., disbursing agreement) as approved by the city.
- E. This guarantee shall save the city free and harmless from all suits or claims for damages resulting from the negligent grading, removal, placement or storage of rock, sand, gravel, soil or other like material within the city.

F. If at any time during the course of the work the amount of the financial guarantee falls below fifty percent (50%) of the required deposit, the applicant shall make another deposit in the amount necessary to restore the cash deposit to the required amount. If the applicant does not bring the financial guarantee back up to the required amount within seven (7) days after notification by the city that the amount has fallen below fifty percent (50%) of the required amount, the city may:

1. Withhold the scheduling of inspections and/or the issuance of a Certificate of Occupancy.

2. Revoke any permit issued by the city to the applicant for the site in question or any other of the applicant's sites within the city's jurisdiction

G. If circumstances exist such that noncompliance with this ordinance poses an immediate danger to the public health, safety and welfare, as determined by the city, the city may take emergency preventative action. The city shall also take every reasonable action possible to contact and direct the applicant to take any necessary action. Any cost to the city may be recovered from the applicant's financial security.

H. The security deposited with the city for faithful performance of the stormwater management plan and any related remedial work shall be released one (1) full year after the completion of the installation of all stormwater pollution control measures as shown on the plan.

9-11-16: **COMPLIANCE ENFORCEMENT:**

A. Any land development or land disturbing activity or post construction runoff initiated after the effective date hereof by any person, firm, association, or corporation subject to this chapter's provisions shall be deemed a violation unless conducted in accordance with said provisions.

B. The administering authority shall investigate and take action on all complaints made in regard to the application of this chapter. The

administering authority is authorized to enter any public or private lands affected by this chapter to inspect the land prior to permit issuance for the purpose of determining whether to approve the plan and, after permit issuance, to determine compliance with this chapter. If permission to enter is denied prior to permit issuance, the land development or land disturbing activity that is the subject of the permit shall not occur. Following permit issuance, if permission cannot be received from the land occupier or land user, entry by the administering authority shall be according to section 66.0119, Wisconsin statutes.

- C. The administering authority shall notify the responsible party by personal service or certified mail of any noncomplying land development activity or land disturbing activity or post construction runoff. The notice shall describe the nature of the violation, remedial action needed, a schedule for remedial action, and additional enforcement action which may be taken.
- D. Upon receipt of written notification from the administering authority under subsection C. of this section, the responsible party shall correct work that does not comply with the stormwater management plan or other provisions of this permit. The responsible party shall make corrections as necessary to meet the specifications and schedule set forth by the administering authority in the notice. This provision also applies to land development or land disturbing activities that commenced under the approval process provided herein without obtaining a permit.
- E. If the violations to a permit issued pursuant to this chapter are likely to result in damage to properties, public facilities, or waters of the state, the administering authority may enter the land and take emergency actions necessary to prevent such damage. The costs incurred by the administering authority, plus interest and legal costs, shall be billed to the responsible party.
- F. The administering authority may post a stop work order if any of the following occurs:
 - 1. Land development activity or land disturbing activity regulated under this ordinance is occurring without a permit.

2. The stormwater management plan is not being implemented in good faith.

3. The conditions of the permit are not being met.

- G. The administering authority may revoke a permit issued under this chapter for noncompliance with this chapter's provisions. Any permit granted under this chapter may be revoked if the holder of the permit has misrepresented any material fact in the permit application or plan; has failed to comply with the plan as originally approved or as modified in writing subsequently by the administering authority; has not ceased activity as required by a posted stop work order; has violated any provision of this chapter; or has violated any of the other conditions of the permit as issued to the applicant.
- H. The administering authority may retract the stop work order issued under subsection F. or the permit revocation under subsection G.
- I. If the responsible party, where no permit has been issued or the permit has been revoked, does not cease the activity after being notified by the administering authority, or if a responsible party violates a stop work order posted under subsection F., the administering authority may request the city attorney to obtain a cease and desist order in any court with jurisdiction.
- J. When the administering authority determines that the holder of a permit issued pursuant to this chapter has failed to follow practices set forth in the technical and performance standards and stormwater management plan, or has failed to comply with schedules set forth in said stormwater management plan, the administering authority or a party designated by the administering authority may enter upon the land and perform the work or other operations necessary to bring the condition of said lands into conformance with requirements of the approved plan. The administering authority shall keep a detailed accounting of the costs and expenses of performing this work. These costs and expenses shall be deducted from any financial guarantee posted pursuant to this chapter. Where such a guarantee has not been established, or where such a guarantee is insufficient to cover these costs, the costs and

expenses shall be imposed as a special assessment or charge, pursuant to section 66.0627 or 66.0703, Wisconsin statutes.

- K. Any permit revocation, stop work order, or cease and desist order shall remain in effect unless retracted by the administering authority, by the board of appeals or by a court of competent jurisdiction.
- L. Any person violating any of the provisions of this ordinance shall be subject to a forfeiture of not less than ten dollars (\$10.00) nor more than two hundred (\$200.00) and the costs of prosecution for each violation. Each day a violation exists shall constitute a separate offense.
- M. Compliance with the provisions of this ordinance may also be enforced by injunction in any court with jurisdiction. It shall not be necessary to prosecute for forfeiture before resorting to injunctive proceedings.

9-11-17: **APPEALS:**

A. Authority: The board of appeals:

1. Shall hear and decide appeals where it is alleged that there is error in any order, decision or determination made by the administering authority in administering this ordinance except for cease and desist orders obtained under section 9-11-16.
2. May authorize, upon appeal, variances from the provisions of this ordinance which are not contrary to the public interest and where owing to special conditions a literal enforcement of the provisions of the ordinance will result in unnecessary hardship; and
3. Shall use the rules, procedures, duties and powers authorized by statute in hearing and deciding appeals and authorizing variances.

B. Who May Appeal: Appeals to the board of appeals may be taken by any aggrieved person or by any office, department or board of the City of Menomonie affected by any decision of the administering authority.

9-11-18: **SEVERABILITY:** If any section, clause, provision or portion of this chapter is judged unconstitutional or invalid by a court of competent jurisdiction, the remainder of this chapter shall remain in force and not be affected by such judgment.

Section 2. This ordinance shall take effect upon the date of publication as provided in Section 62.11(4)(a), Wisconsin Statutes.

INTRODUCED _____

APPROVED THIS _____ DAY

FIRST READING _____

OF _____, 2015

SECOND READING _____

MAYOR, RANDY KNAACK

PASSED _____

PUBLISHED _____

SUBMITTED BY:

ATTEST _____

CITY CLERK, JOANN L. KADINGER ALDERPERSON